ELT Worldwide Volume 5 Number 1 (2018)
P-ISSN 2203-3037; E-ISSN 2503-2291

Motivation and Participation of EFL Students in the Implementation of Scientific Approach

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ABSTRACT

The aims of this study are: 1) to investigate the EFL students' motivation in the implementation of the scientific approach (SA) and 2) to investigate the EFL students' participation in the implementation of the scientific approach (SA). This investigation was under Classroom Action Research (CAR) and was done in two cycles consisted of four stages namely planning, acting, observing and reflecting. The subjects were the students of SMP Negeri 2 Sinjai Tengah in academic year 2016/2017. The data was collected through observation, questionnaires, and interview. While the results of CAR, both in the first and the second cycle shows that the students' motivation and participation in the English learning process significantly improved by implementing SA. All students gave positive responses toward the implementation of SA in the English class. Of the two variables, participation variable is higher than the motivation variable. For learning motivation, students' reaction toward the teacher's responses and spirit of the students in carrying out their tasks were the most motivating factors of the students in learning. Meanwhile for the classroom participation, classroom embodied action and silent or non-oral participation were the most participation activities favored by students.

Keyword: Scientific Approach, Motivation, Participation, EFL Students

INTRODUCTION

Essentially, 2013 curriculum aims to reform teachers' behavior, mind-set, and creativity in educating their students. It has been emphasizing teachers to record students' attitude, knowledge, and skill. Otherwise, the teachers firstly should repair their attitude, build up their knowledge and train their skill before they fulfil them all and adjust to students. The curriculum is expected to indorse teachers in expanding competencies and in learning activities which are pertinent to the students' need, proper situation of the school, and the requirement to link it to the environment (Kartikawati, 2015). This curriculum is famously has a scientific approach (SA). Beside the authentic assessment, SA is being a distinguishing from the previous curriculum.

Scientific Approach (SA) is elderly and novelty. The approach is elderly as it has been applied in science. This approach is novelty because it is newly applied in all subjects in 2013 Curriculum, particularly in English as Foreign Language (EFL) students (Suharyadi, 2013). The SA is actualized in the five or six mutual steps: observing, questioning, exploring, associating, and networking, and also creating. The steps which are intended to establish students' critical thinking and curious in learning are

facilitated widely and deeply. English language teachers have not been convincing yet that SA applied well in learning process. It is not clear yet and presumably it causes some controversies. While, the SA in 2013 curriculum Permendikbud-22 (2016) explained specifically that the learning approach goes to students centered which is implemented in "5 M" or "6 M" such as observing, questioning, associating, experimenting, communicating and creating. On the other hand, the approach can be applied in to some models of leaning "Discovery or Inquiry learning" and "Project Based Learning"

Although SA has been occupied in EFL classroom but it does not really assure that the students are enthusiastic, enjoyable and energetic toward all the steps. Based on the observation and interview in SMPN 2 Sinjai Tengah, this school is one of six the PS in 2013 curriculum since 2013. The school has been implementing the curriculum and engaging SA in the learning process for 4 years. Furthermore, the investigator found that not all English teachers apply this approach in the class. Some of the teachers do not comprehend it and some others say that it is complicated to adjust in English language teaching (ELT) because of the procedures.

Moreover, the students think that the SA learning process is not interesting and their teachers just do the monotonous activities without any clearly steps of the SA. Others comment that the teachers still dominate all the learning process in the class and the students are rarely involved in the learning activities. Even the students' presence in the classroom is only forcing themselves because they are afraid of their teacher. So that, most of them are reluctant to focus and participate in learning English. The case above shows that the students have low motivation and participation in EFL class.

One of the key successes in language learning is motivation (Gardner and Lambert, 1972 in Dornyei, 1998). Gardner (1985) defines motivation has three components: 1) effort expanded to reach the goal; 2) desire to achieve the goal; 3) favorable attitude towards learning language. Furthermore, aspects of learning motivation can be seen from students' attitude during the learning process such as students' interest and attention, students' spirit, students' responsibility, students' pleasure, and students' reaction (Sudjana, 1994).

Related to participation in learning activities is a valuable work habit for certain excuse. It provides students with opportunities to learn and practice new knowledge and strategies, to explain their reasoning, and to examine their thinking processes and recognize the need to revise thinking. Students' classroom participation can be judged from students' involvement in commenting and joining in discussions, also sharing their opinions, thoughts and ideas. Moreover, Warayet (2011) illustrated the types of classroom participation such as graded and oral participation, silent or non-oral participation, classroom embodied action, and classroom desk talk.

Based on the illustration above, the purpose of this investigation was to find out:

1) To find out the EFL students' motivation of SMP Negeri 2 Sinjai Tengah in the implementation of scientific approach
2) To find out the EFL students' participation of SMP Negeri 2 Sinjai Tengah in the implementation of scientific approach.

RESEARCH METHOD

The investigators applied Classroom Action Research (CAR). The CAR was suggested in two cycles. Each cycle consisted of 4 meetings. Three of them were learning process and the last meeting was giving questionnaires and interviewing. Research design employed in this investigation is Model of Arikunto (2016) translated the outline they are: 1) planning, 2) acting, 3) observing, and 4) reflecting. The object of investigation was the students' classroom motivation and participation of EFL students in the implementation of SA. This investigation held at SMP Negeri 2 Sinjai Tengah and the subject in this investigation was class 7-C for 2016/2017 academic year with 28 students.

This investigation was said successful if EFL students' motivation and participation of mean score were equal or more than 75.00% in the implementation of SA improved as table be shown below:

Table 1: The list of indicators of success in each variable

Variables	Indicators of Success (%)	Category
Student's Motivation Observation	75.00	Good
Student's Participation Observation	75.00	Good
Student's Motivation Questionnaire	75.00	Good
Student's Participation Questionnaire	75.00	Good

Mulyasa (2005) in Astuti (2011) stated that the learning process is success if there is changing of student's positive behavior entirely or at least a large part of 75.00%. If each of the variables for each indicator of success had achieved or over the targets (75.00%), the investigation was meant success and it did not need to be proceeded to the next cycle. On the contrary, if there were all or some indicators of success in each variable did not achieve the targets (75.00%) then this investigation continued to next cycle.

FINDINGS

The findings from qualitative descriptive will be described briefly:

1. Planning

After identification of problem, the investigator prepared some preparation such as syllabus and lesson plan, the materials and worksheets, observation sheets, and questionnaires. In the *planning I*, the investigator held meeting with 3 observers. This meeting was as preparing for acting I. It discussed about the investigation process such as learning process of 3 meetings, material and topic, observation sheet, observers position in the classroom, taking pictures, and questionnaires. Because of 1st cycle showed that the learning process runs well and two indicators of success were achieved namely observation of participation and questionnaires of participation. Students' participation had attained the target and should be increased more. Otherwise with students' motivation was not achieved the target. So that, the learning process should be advanced as mentioned in *planning II of 2nd cycle*. In this case, *observing II* was done together with the *acting II*.

2. Acting

In the *acting I*, the investigator performed 2013 curriculum syllabus of the latest revision namely the based competence was number 3.5 (cognitive competence) "Identify the social function, text structure, and language features text of oral and written transactional interaction which involved giving and ask for information related to the nature of people, animals, things based on the usage context (pay attention to language features of "be,

adjective)" and number 4.5 (psychomotor competence) "Arrange the oral and written transactional interaction text very short and simple which involved giving and ask for information related to the nature of people, animals, things by paying attention to right and context of social function, text structure, and language features" (Permendikbud-24, 2016). Almost the same with the *acting II* still conducted the same syllabus of the basic competence.

3. Observing

In this case, *observing I* of 1st cycle was done at the same time with *acting I*. The investigator conducted the data collection through observation, questionnaires, and interview.

Observation of Motivation

The investigator gathered data after observing motivation, five aspects were observed they are students have curiosity and give question if they don't understand as indicator 1, students prefer to collaborate in groups to working alone as indicator 2, students help their friends who have difficulties in learning process as indicator 3, students can do a presentation without having a good preparation as indicator 4, and students are able to convey their opinion well as indicator 5. Both of cycles will be explain as follows:

Table 2: The improvement of motivation observation of all cycles

No.	Indicators	Achievement of 1st Cycle (%)	Achievement of 2nd Cycle (%)	Deviation
1.	Students have curiosity and give question if they don't understand	59.92	73.41	13.49
2.	Students prefer to collaborate in groups to working alone	90.08	86.90	-3.18
3.	Students help their friends who have difficulties in learning process	65.08	79.76	14.68
4.	Students can do a presentation without having a good preparation	32.94	59.92	26.98
5.	Students are able to convey their opinion well	72.62	78.57	5.95
	Total Mean Score	64.13	75.57	11.58

Based on the data above, it indicated the improvement of classical percentage from the 1st cycle to the 2nd cycle. Generally, each indicator improved significantly such as students' curiosity and giving question if they don't understand (indicator 1) improved 13.49%, students help their friends who have difficulties in learning process (indicator 3) improved 14.68%, students can do a presentation without having a good preparation (indicator 4) significantly improved 26.98%, and students are able to convey their opinion well (indicator 5) improved 5.95%, while students prefer to collaborate in groups to working alone (indicator 2) decreased 3.18% from 1st cycle to 2nd cycle but it was the higher score (86.90%) of all motivation observation's indicators. So, the mean score improved from 64.13% to 75.71%. It means that students' mostly motivated in the learning process.

Observation of Participation

In observing participation, the investigator observed three aspects they are students take an active role in learning and get involved in doing something as indicator 1, students get involved actively in giving idea or input in learning process as indicator 2, and students are

responsible for what is done in learning process as indicator 3. The result of observation of students' participation in the cycles can be seen below:

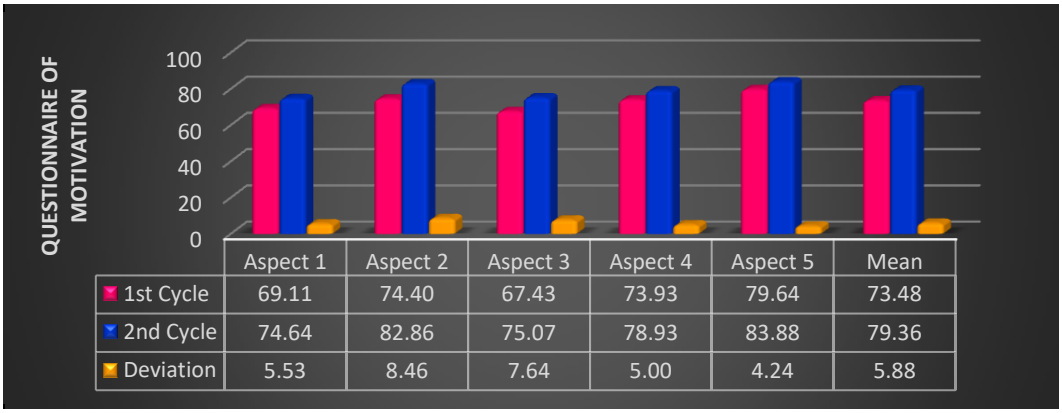
Table 3: The improvement of participation observation of all cycles

No.	Indicators	Achievement of 1st Cycle (%)	Achievement of 2nd Cycle (%)	Deviation
1.	Students take an active role in learning and get involved in doing something	87.70	87.30	-0.40
2.	Students get involved actively in giving idea or input in learning process	70.24	69.05	-1.19
3.	Students are responsible for what is done in learning process	71.43	90.87	19.44
Total Mean Score		76.46	82.41	5.95

Based on the figure above shows that *students are responsible for what is done in learning process* (indicator 3) significantly improved 19.44% from the 1st cycle to the 2nd cycle, while another indicators decreased such as *students take an active role in learning and get involved in doing something* (indicator 1) decreased 0.40% and *students get involved actively in giving idea or input in learning process* also decreased 1.19% but the mean score significantly improved from 76.46% to 82.41%. It means that students' mostly participated in the learning process.

Questionnaire of Motivation

The result of questionnaire of students' motivation in the cycles can be seen below:



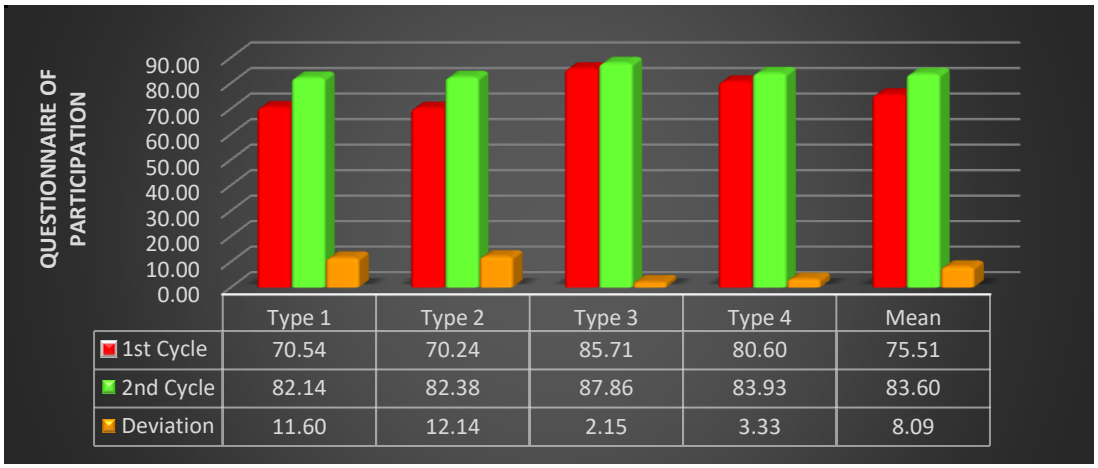
	Aspect 1	Aspect 2	Aspect 3	Aspect 4	Aspect 5	Mean
1st Cycle	69.11	74.40	67.43	73.93	79.64	73.48
2nd Cycle	74.64	82.86	75.07	78.93	83.88	79.36
Deviation	5.53	8.46	7.64	5.00	4.24	5.88

Figure 1 : The improvement of motivation questionnaire of all cycles

The data above point that all aspects significantly improved from the 1st cycle to the 2nd cycle. The 5 aspects were *interest and attention of student toward the lesson* (aspect 1) increased 5.53%, *spirit of the students in carrying out their tasks* (aspect 2) increased 8.46%, *responsibility of the students in carrying out their tasks* (aspect 3) increased 7.64%, *comfortable in working on teacher's assignment* (aspect 4) increased 5.00%, and *students' reaction toward the teacher's responses* (aspect 5) increased 4.24% from the 1st cycle to the 2nd cycle. The total mean score improved from 73.48% to 79.36%. So, the students' mostly motivated in the learning process of the 2nd cycle.

Questionnaire of Participation

The result of questionnaire of students' participation in the cycles can be seen below:



	Type 1	Type 2	Type 3	Type 4	Mean
1st Cycle	70.54	70.24	85.71	80.60	75.51
2nd Cycle	82.14	82.38	87.86	83.93	83.60
Deviation	11.60	12.14	2.15	3.33	8.09

Figure 2 : The improvement of participation questionnaire of all cycles

The figure above shows that the students' participation from the 1st cycle to the 2nd cycle improved significantly. The types of classroom participation which increased such as type 1 (*graded and oral participation*) increased 11.60%, type 2 (*silent or non-oral participation*) increased 12.14%, type 3 (*classroom embodied action*) increased 2.15%, and type 4 (*classroom desk talk*) increased 3.33%. So that, the total mean score highly improved from 75.51% of 1st cycle to 83.60% of 2nd cycle. The data indicated that most of students participated actively in the learning process of 2nd cycle.

DISCUSSION

1. Data of Observation

Based on the data of the observation, it can be concluded that the learning process of in implementing the SA was success enough to improve students' motivation and participation. Because of the 5 indicators of motivation and 3 indicators of participation completed with observation sheet provided, almost all items were in very good assessment. In terms of students' respond and the condition of the classroom, there was improvement based on the observation of the students. Students' motivated and participated were highly improved.

Observation of Students' Motivation

In students' observation of motivation on the 1st cycle showed that students had low motivation. So that, the investigator tried to do some treatments to improve students' intrinsic and extrinsic motivation (Gardner, 1985) in *Planning II* such as dividing students into small group working, doing ice breaking to attract students attention, and applying students centered learning. This is in line with Long (2013) that the teacher should apply various interesting activities in whole class, in small groups or in pair, which can pull students' attention. Besides, the teacher should create a good climate in order to the success of the student-centered method.

Observation of Students' Participation

Another case with the students' participation was higher since the 1st cycle than students' motivation because in the learning process the students' participation were easily and

clearly to be observed by the observers. In addition to students participation investigated in Classroom Action Research (CAR) which is implemented scientific approach where the methods were using students centered method. As well as Herlina (2014) stated that scientific approach give positive effect to the students' participation in the classroom as well as their motivation in learning. Furthermore, Wahyudin (2015) in his research concluded that scientific approach could not be effectively applied by the teacher but it somehow gave some positive contributions to the students' participation, and critical thinking.

2. Data of Questionnaires

The result of questioner showed that the implementation of the scientific approach (SA) obtained positive responses in their teaching learning process of English subject. It was proven that all students gave positive responses toward the implementation of SA to improve students' motivation and students' participation in learning English. The data of the questioner showed that all students' questionnaires' result were higher since the 1st cycle to 2nd cycle.

Questionnaire for Students' Motivation

In the motivation questionnaire, the investigator applied the five aspects of learning motivation (Sudjana, 1994) which appeared in the learning process of all cycles. Based on the findings that the fifth aspect was the higher than others of five aspects namely *students' reaction toward the teacher's responses*. The percentage was higher since the 1st cycle (79.64%) to the 2nd cycle (83.88%), meanwhile the aspect which highly improved from the 1st cycle to the 2nd cycle was the second aspect namely *spirit of the students in carrying out their tasks* (8.46%) compared with others aspects.

Questionnaire for Students' Participation

Related to the participation questionnaire, the investigator noticed the four types of classroom participation (Warayet, 2011) which arose in the learning process since the 1st cycle till to the 2nd cycle. The findings shows that from the four types of classroom participation, the third types was the higher than others of four types specifically *classroom embodied action*. The score was higher since the 1st cycle (85.71%) to the 2nd cycle (87.86%), while the type which highly increased from the 1st cycle to the 2nd cycle was *silent or non-oral participation* (12.14%). It was the second type of participation.

This is line with Warayet (2011) who found that there are other forms of student participation, including embodied action and desk talk. Embodied action analysis reveals that students as collaborative members rely on a variety of embodiments to sustain classroom interaction. And also, the results obtained from this analysis provide evidence of the extent to which such these embodiments are exploited by language learners to participate in their classrooms. This means that students are not only orally participating but they are also non-orally constructing a kind of group participation through distributing meaningful signals.

3. Data of Interview

From the interview, the investigator gained data that the implementation of scientific approach (SA) in learning English made students happier, more spirit, more active and were involved in the learning process. The students also worked together and shared information or discussed with own group or others. They were brave to express their selves by questioning, answering, discussing, working, doing worksheets, presenting, and appreciating others opinion. The most important thing is that the SA improved their motivation and participation in the class. According Herlina (2014) reported that the

implication of implementing the SA in learning process particularly in the observation step can generate students' interest and motivation.

Based on the investigation above, there were improvement of students' motivation and participation of EFL classroom in implementing the SA. The improvement occurred in every cycle. So that, it could be said that the SA was able to drive students' learning motivation, which made the students more participate in the English learning process of grade 7-C SMPN 2 Sinjai Tengah.

CONCLUSION

Based on the discussion that is proposed in previous other chapter, the investigation concludes as follows:

1. The EFL students' motivation and participation significantly improved by implementing the scientific approach (SA) in English learning process. All students gave positive responses toward the implementation of SA in the English class. Of the two variables, participation variable is higher than the motivation variable.

2. For learning motivation, *students' reaction toward the teacher's responses* and *spirit of the students in carrying out their tasks* were the most motivating factors of the students in learning. While for the classroom participation, *classroom embodied action* and *silent or non-oral participation* were the most participation activities favored by students.

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